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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/986,911

11/13/2001

Toshihide Ibaraki

107292-00030

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32294

7590

08/24/2006

SQUIRE, SANDERS & DEMPSEY L.L.P.

14TH FLOOR

8000 TOWERS CRESCENT

TYSONS CORNER, VA 22182

EXAMINER

JARRETT, RYAN A

ART UNIT

PAPER NUMBER

2125

DATE MAILED: 08/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/986,911

Applicant(s)

IBARAKI ET AL.

Examiner

Ryan A. Jarrett

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
4a) Of the above claim(s) See Continuation Sheet is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 22-25, 58, 59 and 97 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 11/13/01, 01/07/05.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Continuation of Disposition of Claims: Claims pending in the application are 6,7,11-15,17,19,20,22-25,27-40,42-46,58,59,61,62,64,65 and 67-97.

Continuation of Disposition of Claims: Claims withdrawn from consideration are 6,7,11-15,17,19,20,27-40,42-46,61,62,64,65 and 67-96.

DETAILED ACTION

1. Claims 6-7, 11-15, 17, 19-20, 22-25, 27-40, 42-46, 58-59, 61-62, 64-65, 67-97 are pending in the application.

Claims 6-7, 11-15, 17, 19-20, 27-40, 42-46, 61-62, 64-65, and 67-69 were previously withdrawn from consideration as being directed to a non-elected invention.

Claims 70-96 are currently withdrawn from consideration as being directed to a non-elected invention.

Claims 22-25, 58, 59, and 97 are presented for examination below.

Election/Restrictions

2. Applicant's election of Group I (claims 22, 24, 58, and 97) in the reply filed on 08/04/2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim 23 will be examined with Group I as well, as requested by the Applicant. Claims 25 and 59 will also be examined with Group I, since they are similar to elected claim 97. Claims 23, 25, and 59 were not included in any of the restricted claim groupings by the Examiner since they were indicated as "Withdrawn" in the amendment filed 04/20/2006. Applicant is respectfully requested to ensure the accuracy of the claim listing in the next communication. For example, elected claims 22 and 58 are also currently listed as "Withdrawn".

Claims 70-96 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 08/04/2006.

The requirement is still deemed proper and is therefore made FINAL.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

4. The information disclosure statements (IDS) submitted on 11/13/2001 and 01/07/2005 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 58-59 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 58 is a single means claim. A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). The claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.

Claim 59 depends from claim 58 and incorporates the same deficiency.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 22-25, 58, 59, and 97 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 22 and 58 recite the limitation "working a workpiece". This is a phrase that is not used in the art, and thus the meaning of the phrase is indefinite. Proper idiomatic English is required. It appears that this phrase may be intended to mean "working on a workpiece".

Claim 23 recites the limitation "and the" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no antecedent basis for both the number of scanning or moving the working means and the number of moving stage being determined. Claim 22 only requires that one or the other is determined. Although both could be determined, it is not required. Therefore, it is unclear claim 23 requires both numbers to be weighted or just one.

Claim 23 recites the limitation "difference" in line 3. The term "difference in...time" implies that multiple times are being compared to determine a difference. There appears to be only a single time though, which is associated with a time for scanning or moving a working means or a time for moving the stage. Thus, it is unclear what the multiple times are referring to.

Claim 24 recites the limitation "the interval of said working means" in line 3. There is insufficient antecedent basis for this limitation in the claim. Claim 22 only recites an "interval between the working units". There is no recitation of an interval between the working means.

Claim 24 recites the limitation "that time" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 24 recites the limitation "the time" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitation "the process" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 25 recites the limitation "a different workpiece direction" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior mention of any "first" workpiece direction that would give antecedent basis to a "different" workpiece direction.

Claim 59 recites the limitation "the processing" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 59 recites the limitation "a different workpiece direction" in line 4. There is insufficient antecedent basis for this limitation in the claim. There is no prior mention of any "first" workpiece direction that would give antecedent basis to a "different" workpiece direction.

Claim 97 recites the limitation "a different workpiece direction" in line 2. There is insufficient antecedent basis for this limitation in the claim. There is no prior mention of any "first" workpiece direction that would give antecedent basis to a "different" workpiece direction.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10. Claims 22-25, 58, 59, and 97 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are generally directed to an abstract idea (§101 judicial exception). For claims including such excluded subject matter to be eligible, the claim must be for a

practical application of the abstract idea. Diehr, 450 U.S. at 187, 209 USPQ at 8; Benson, 409 U.S. at 71, 175 USPQ at 676.

To satisfy section 101 requirements, the claim must be for a practical application of the §101 judicial exception, which can be identified in various ways: (1) The claimed invention “transforms” an article or physical object to a different state or thing, or (2) The claimed invention otherwise produces a useful, concrete and tangible result.

In the present case, claims 22-25, 58, 59, and 97 do not “transform” an article or physical object to a different state or thing. There is no positive recitation of actually machining a workpiece.

For eligibility analysis, physical transformation “is not an invariable requirement, but merely one example of how a mathematical algorithm [or law of nature] may bring about a useful application.” AT&T, 172 F.3d at 1358-59, 50 USPQ2d at 1452. In determining whether the claim is for a “practical application”, the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is “useful, tangible and concrete”.

The tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different thing. However, the tangible requirement does require that the claim must recite more than a §101 judicial exception, in that the process claim must set forth a practical application of that §101 judicial exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had “no

substantial practical application”). “[A]n application of a law of nature or mathematical formula to a ... process may well be deserving of patent protection.” Diehr, 450 U.S. at 187, 209 USPQ at 8 (emphasis added); see also Corning, 56 U.S. (15 How.) at 268, 14 L.Ed. 683 (“It is for the discovery or invention of some practical method or means of producing a beneficial result or effect, that a patent is granted...”). In other words, the opposite meaning of “tangible” is “abstract”.

In the instant case, the final result achieved by claims 22, 23, and 58 is merely “determining”. The final result achieved by claim 24 is merely “calculating”. These abstract results fail to provide the required “real-world result” that satisfies the “tangible result” requirement. The final result achieved by claim 25, 59, and 97 is “employing a workpiece direction”. This also appears to amount to nothing more than some sort of non-tangible calculation or determination operation.

Where the final result of a claimed invention is what has been determined, calculated, selected, decided, etc. without using what has been determined, calculated, selected, decided, etc. in a disclosed practical application or at least making what has been determined, calculated, selected, decided, etc. available for use through some form of conveyance (e.g., display, print, sound, transmission, etc.) or at least temporary storage somewhere, then a tangible result has not been achieved.

11. Further regarding claim 58 and 59, although the claims are directed to a “device” comprising “means”, all of the claimed “means” could reasonably be interpreted by one of ordinary skill, in light of the disclosure, to be software, such that the “device”

comprising "means" is software, per se, not tangibly embodied on a computer-readable medium.

Claim Rejections - 35 USC § 102

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. As best understood, claims 22-25, 58, 59, and 97 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 11-149317 (provided by Applicant), see abstract for example.

14. As best understood, claims 22-25, 58, 59, and 97 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 525 497 A1 (provided by Applicant), see pg. 6 lines 5-16 for example.

15. As best understood, claims 22-25, 58, 59, and 97 are rejected under 35 U.S.C. 102(a) as being anticipated by JP 2001-195112 A, see claims for example.

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Conclusion

16. Inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ryan A. Jarrett
Examiner
Art Unit 2125



8/19/06